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An Essay
on
Cholera Infantum

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In Glory

Glorious Inheritance

Heavenly Inheritance

Cholera Infantum

Among the various diseases incident to the Human Family, demanding the attention of the Practitioner, that of Cholera Infantum claims a conspicuous rank. Living in a section of country where this disease prevails to no inconsiderable extent, and where during those months in which it rages, our bills of mortality are so frequently enlarged by its ravages. I have been induced to select it for my Inaugural dissertation, and as it is not my design to offer any thing original, I simply submit it to the Medical Faculty of the University of Pennsylvania, bearing nothing of my own but

the thread which connects it". Cholera Infantum is a disease almost peculiar to the United States. It is generally known by the name of the Summer Complaint of children, making its appearance in May or June, and continuing until September. Its fatality depends upon the temperature of the climate, being most alarming when an increase of heat predominates. Irregularities in diet and clothing, attended with the irritation of dentition, together with premature weaning and worms, may be reckoned among the exciting causes.

Symptoms This disease sometimes makes its appearance as a bilious diarrhoea, without any apparent derangement of the system. But generally with a violent vomiting and purging, the vomiting sometimes makes its appearance without the purging, and vice versa. In general the fever which supervenes is of the remittent type, with marked exacerbations in the evening, pulse varying, being

sometimes quick and small, and again soft and flabby. The alvine discharges which are generally of a greenish appearance, are watery, having an offensive smell. Again they are of mucous streaked with green, and occasionally they consist of a large quantity of fluid, of a limpid appearance, and if of long standing are destitute of any appearance indicating the presence of bile: Again they are thick and tenacious, consisting of slime, and mucous streaked with blood. In some instances the ingesta pass rapidly off without alteration, the stomach having lost its power of digestion. The disease often proves fatal in a few days, but generally it continues with occasional variations, for six weeks, or two months.

When it has been of long standing, its termination in death, is attended with a number of distressing symptoms. An excessive emaciation of the body, so that the bones protrude the skin: Livid spots appear on the skin followed by ulceration.

Among the symptoms denoting its termination fatally, may be noticed the crystalline eruptions upon the chest, consisting of a number of watery vesicles of a minute size, resembling those produced by the sprinkling of boiling water on the surface. And the thrusting the fingers into the back part of the mouth as if desirous of removing something from the throat.

In this disease the hair is considerably affected, as is manifested by a tendency to delirium and stupefaction, and indeed to mania, as the child has been known to bite its parents and even itself, whilst its little head is thrown backward & forward, apparently in the greatest agony. The eyes also denote this cerebral affection. They are either fierce or languid in expression, or sunk and heavy. The thirst is excessively intense, and if the little sufferer is gratified with a refreshing glass of water, it is immediately ejected, and the thirst returns with redoubled ardour.—

Pathology. Respecting the pathology of this disease, much difference of opinion has existed amongst Medical Writers, but it is pretty generally admitted to arise from an over heated and vitiated state of the atmosphere, being most prevalent in the narrow dirty streets of large cities, inhabited by the poor class of society, who pay no attention to the cleanliness, clothing, and diet of children.

"Poor wretch —

"That for thy mothers fault, art thus exposed
"To loss, and what may follow.

It also prevails in low, marshy, and other unhealthy situations, where autumnal fevers are most remarkable, and hence it is concluded to be a mere form of bilious fever, the force of which is expended on the intestines.

It affects children most commonly between the fifth and twelfth months. The great vascularity, and irritability of the

shine, and its intimate connection with the abdominal viscera, so that an impression made on the one being quickly transmitted to the other, under the Infant's peculiarly liable to be affected with any derangement of this part of the system. It may also be observed that at this particular age, the intestinal canal is in an increased state of irritability, from the predisposing causes before mentioned, and that there is an undue determination to its vessels, when the equolibrium of the circulation is destroyed. When perspiration is diminished by a vitiated or miasmatic state of the atmosphere, debilitating the cutaneous vessels, and disqualifying them for the free circulation of their accustomed fluids; this equalibrium is impaired, and there occurs a congestion in that part of the system which is most predisposed to disease. That part in Infants, is the abdominal viscera.

The lining coats of the stomach and bowels, being in a high state of irritability

and the surrounding organs participating, it is communicated to the liver, which being already engaged, its office is either suspended or vitiated, and in consequence of this morbid state of irritability, the stomach and bowels are excited to increased action, by the irritating columns poured into their cavities, from their own vessels, and those of the surrounding viscera.

In support of this pathology, dissections show, that upon the mucous membranes of the viscera of the abdomen, is expended all the violence of the disease. Livid spots are found on the small intestines, and all the coats of the stomach softened. The liver, stomach, and intestines, are injected with blood, and there is an almost entire reception of fluids, from the circumference to the centre.

Treatment. Considering Cholera Infantum occasioned by a derangement in the circulation, producing an engorgement of the abdominal viscera,

Venesection in violent attacks, is imperiously demanded, as a prudential remedy in obviating inflammation, particularly when there is much febrile excitement—

But as the disease usually commences, as has already been observed, with a derangement of the alimentary canal, we should resort to those medicines which will promote a free evacuation from it. The oleum Ricini in mild cases, will generally answer every intention. Laudanum has been recommended to be combined with it, when the patient is free from fever—When it assumes an appearance more formidable, it will be necessary, first to allay the irritability of the stomach. For this purpose an injection of warm water holding in solution three tea spoonsful of common salt, for a child a year old or upwards, has been highly recommended by Doctor Dewees. It should be repeated notwithstanding the frequent discharges from the bowels.

Warm bathing, fomentations &c have also been recommended, as well as Milk and lime water, and strong coffee, without sugar or milk.

Notwithstanding what has been said against the administration of Emetics I am inclined to recommend them on the authority of Doctors Rush and Chapmans experience, in the next form of our disease, which is characterized by the following symptoms; great gastric uneasiness, vomiting, pain about the umbilicus, fever, a quick irritated pulse, white tongue, dry state of the skin, and loss of appetite.

Emetics relieve the stomach, and impart to it a degree of tone, determine to the surface, equalize the circulation, soften the skin, and prevent subsequent visceral congestion. For this purpose a preference is given to Ipecac. The great desideratum in cholera Infantum, says Dr Dewees is to tranquilize the

stomach, and if the disease has been provoked by any irritating matter in it, it should be our first endeavour to remove it, by encouraging the vomiting by draughts of warm or cold water, until no foreign substance appears in the matter ejected."

It will now be proper to administer cathartics, and calomel in minute doses is preferred. To Cholera, this medicine is peculiarly adapted, from its being without taste or smell, and from the minutenes of the dose required to produce the desired effect, it will remain on the stomach, when almost any other medicine would be ejected. It should not be discontinued after repeated operations, or when a through evacuation has been effected, but given lib. frequently to prevent a reaccumulation of bilious matter.

Our next resort should be to those remedies, which tranquilize the stomach, and determine to the surface, for this purpose we prescribe calomel, Ipecac and Opium, in doses. pro re nata.

Should irritation of the stomach continue, and unequal temperature prevail, much benefit may be derived from Vesters. They should be applied over the stomach, abdomen, or to the extremities,— amongst our remedies for equalizing the circulation. The warm bath should not be forgotten; By immersing the Patient in warm water, the temperature becomes adjusted, and an universal glow is diffused over the entire surface of the body; But as the warm-bath is not calculated to make a permanent impression, it should be repeated daily, or oftener, and to render it more effectual, the addition of a little mustard, Salt, or brandy will be found a valuable acquisition.

If the bowels continue in a highly irritable state, with bloody evacuations, the oleaginous mixture is recommended, consisting of Oleum Ricini. Gum. acacia, and tinct: Opium, or perhaps what is preferable, a preparation of acetum Plumbi, Ipecac, and Opium.—

Cholera Infantum sometimes runs into diarrhea, with tormina, and tenesmus, the stomach becoming greatly debilitated, and incapacitated for the retention of whatever may be received into it.

During this stage, the discharges are green, and watery, manifesting a predominance of acid. The remedies, under such circumstances, should consist of the alkaline and cretaceous preparations: a combination of Rhubarb and calcined magnesia, may be resorted to, with advantage.

When the Stomach is tranquilized, and the alimentary canal has been sufficiently operated on, it will be proper to administer astringents: It was formerly the practice to commence, at once, with them, without previously preparing the system for their reception. But it was marked with the alarming fatality, which must of necessity attend it. By such a practice, we palliate only the effects, whilst the exciting cause

is suffered to remain "like a worm i the bud", to blast the short lived delusive repose, by a return of the disordered action of the intestines".

Combinations of chalk with Kino, and an infusion of Galls. with Laudanum, are highly reputed. An infusion of logwood, of pomegranate bark, of dwarf-berry root, or of red oak bark, in doses of a desert spoonful, are said to be of advantage.

I would also call the attention of Physicians to the Sesamum Orientale, or Benne plant. It has been found, in every stage of Cholera Infantum, one of the best mucilaginous drinks that can be given. A leaf of the plant put into a tumbler of cold water, and suffered to remain a few minutes, imparts to it a great quantity of mucilage, perfectly tasteless, which is taken by the little sufferer with great avidity. It forms also a valuable injection in that

kind of Cholera attended with dysenteric symptoms. It is cultivated in many of our gardens to the South, and is freely made use of, not only in Cholera Infantum, but also, as a drink in Phthisis Pulmonalis, Catarrh, Gonorrhea, Dysentery, and Diarrhoea, and, I have no doubt, will be found a valuable addenda, in many of the diseases mentioned above.

When the mucous tissue of the bowels is disordered, the tongue becoming loaded and the stools slimy, the Spirits of Turpentine in doses of from five to twenty drops, three or four times a day in sweetened water, will be found beneficial.— Let it be remembered, that signal advantage has been derived, from wearing the flannel roller.

Regimen. The diet should consist exclusively of breast milk. In the commencement of the disease, it will sometimes cure it itself, and

Gum tea. Rice, and Barley water, when the heart is refused. The farinacea in more advanced stages may be given. Tapioca Arrow-root &c. and ham and salt fish, when there is great irritability of the stomach.

Above all our remedies; country air is to be ranked; It has been found of infinite advantage in all stages of the disease, and when it cannot be obtained, frequent changes by riding and sailing, must be had recourse to; for as long as a child remains exposed to the operation of the causes of the disease, the Physician may suspend or palliate, but its return as a relapse, with a final extinction of strength, blasts all his hopes of a recovery, and he has the mortification of seeing his patients expire under the most judicious treatment.

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